

## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/531159  
Source: pet  
Date Processed by STIC: 4-25-05

***ENTERED***

## CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/531/159

CRF Edit Date: 4-25-05  
Edited by: 76

\_\_\_ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

\_\_\_ Corrected the SEQ ID NO. Sequence numbers edited were:

\_\_\_\_\_

\_\_\_ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

\_\_\_\_\_

☒ Deleted: ☒ invalid beginning/end-of-file text ; \_\_\_ page numbers

\_\_\_ Inserted mandatory headings/numeric identifiers, specifically:

\_\_\_\_\_

\_\_\_ Moved responses to same line as heading/numeric identifier, specifically:

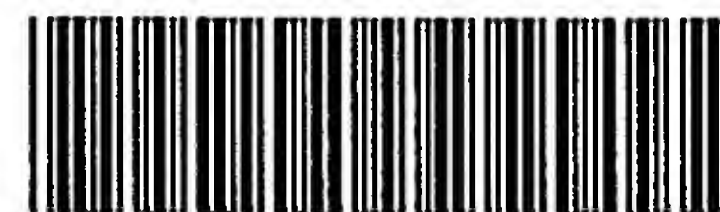
\_\_\_\_\_

\_\_\_ Other:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



PCT

## RAW SEQUENCE LISTING

DATE: 04/25/2005

PATENT APPLICATION: US/10/531,159

TIME: 16:44:10

Input Set : A:\pto.kd.txt

Output Set: N:\CRF4\04222005\J531159.raw

3 <110> APPLICANT: Keim, Paul S.  
 4 Pearson, Talima  
 5 Price, Lance  
 6 Busch, Joseph D.  
 8 <120> TITLE OF INVENTION: Molecular signatures and assay for fluoroquinolone  
 resistance in  
 9 bacillus anthracis  
 11 <130> FILE REFERENCE: 112624.00029  
 C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/531,159  
 C--> 13 <141> CURRENT FILING DATE: 2005-04-12  
 13 <150> PRIOR APPLICATION NUMBER: 60/417843  
 14 <151> PRIOR FILING DATE: 2002-10-11  
 16 <150> PRIOR APPLICATION NUMBER: PCT/US03/32887  
 17 <151> PRIOR FILING DATE: 2003-10-14  
 19 <160> NUMBER OF SEQ ID NOS: 53  
 21 <170> SOFTWARE: PatentIn version 3.2  
 23 <210> SEQ ID NO: 1  
 24 <211> LENGTH: 35  
 25 <212> TYPE: DNA  
 26 <213> ORGANISM: Artificial  
 28 <220> FEATURE:  
 29 <223> OTHER INFORMATION: Bacillus anthracis  
 32 <220> FEATURE:  
 33 <221> NAME/KEY: primer\_bind  
 34 <222> LOCATION: (1)..(35)  
 35 <223> OTHER INFORMATION: ParC QRDR F  
 37 <400> SEQUENCE: 1  
 38 gtgttaggtg accgctttgc acgttatagt aaata  
 41 <210> SEQ ID NO: 2  
 42 <211> LENGTH: 31  
 43 <212> TYPE: DNA  
 44 <213> ORGANISM: Artificial  
 46 <220> FEATURE:  
 47 <223> OTHER INFORMATION: Bacillus anthracis  
 50 <220> FEATURE:  
 51 <221> NAME/KEY: primer\_bind  
 52 <222> LOCATION: (1)..(31)  
 53 <223> OTHER INFORMATION: ParC QRDR R  
 55 <400> SEQUENCE: 2  
 56 gtaaaacaac cggttcttca ctcgtatcat c  
 59 <210> SEQ ID NO: 3  
 60 <211> LENGTH: 45  
 61 <212> TYPE: DNA  
 62 <213> ORGANISM: Artificial

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64 <220> FEATURE:
65 <223> OTHER INFORMATION: Bacillus anthracis
68 <220> FEATURE:
69 <221> NAME/KEY: primer_bind
70 <222> LOCATION: (1)..(45)
71 <223> OTHER INFORMATION: GyrA QRDR F
73 <400> SEQUENCE: 3
74 acgtattaat tccatagaga ttttagacat tcttgcttct gtata 45
77 <210> SEQ ID NO: 4
78 <211> LENGTH: 37
79 <212> TYPE: DNA
80 <213> ORGANISM: Artificial
82 <220> FEATURE:
83 <223> OTHER INFORMATION: Bacillus anthracis
86 <220> FEATURE:
87 <221> NAME/KEY: primer_bind
88 <222> LOCATION: (1)..(37)
89 <223> OTHER INFORMATION: GyrA QRDR R
91 <400> SEQUENCE: 4
92 catttttaga ttacgcaatg agtggtatcg tatctcg 37
95 <210> SEQ ID NO: 5
96 <211> LENGTH: 28
97 <212> TYPE: DNA
98 <213> ORGANISM: Artificial
100 <220> FEATURE:
101 <223> OTHER INFORMATION: Bacillus anthracis
104 <220> FEATURE:
105 <221> NAME/KEY: primer_bind
106 <222> LOCATION: (1)..(28)
107 <223> OTHER INFORMATION: ba pARc Afl
109 <400> SEQUENCE: 5
110 ggtacgacag ttgcccaaaa tgatgggt 28
113 <210> SEQ ID NO: 6
114 <211> LENGTH: 22
115 <212> TYPE: DNA
116 <213> ORGANISM: Artificial
118 <220> FEATURE:
119 <223> OTHER INFORMATION: Bacillus anthracis
122 <220> FEATURE:
123 <221> NAME/KEY: primer_bind
124 <222> LOCATION: (1)..(22)
125 <223> OTHER INFORMATION: BA ParC bF1
127 <400> SEQUENCE: 6
128 caagcggaag caattgtatc ct 22
131 <210> SEQ ID NO: 7
132 <211> LENGTH: 35
133 <212> TYPE: DNA
134 <213> ORGANISM: Artificial
136 <220> FEATURE:

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Input Set : A:\pto.kd.txt

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137 <223> OTHER INFORMATION: Bacillus anthracis
140 <220> FEATURE:
141 <221> NAME/KEY: primer_bind
142 <222> LOCATION: (1)..(35)
143 <223> OTHER INFORMATION: BA ParC bF1
145 <400> SEQUENCE: 7
146 cgcgctcgatc atcactatat gttttcttaa ctctc 35
149 <210> SEQ ID NO: 8
150 <211> LENGTH: 29
151 <212> TYPE: DNA
152 <213> ORGANISM: Artificial
154 <220> FEATURE:
155 <223> OTHER INFORMATION: Bacillus anthracis
158 <220> FEATURE:
159 <221> NAME/KEY: primer_bind
160 <222> LOCATION: (1)..(29)
161 <223> OTHER INFORMATION: BA ParC bR1
163 <400> SEQUENCE: 8
164 attattattc gcgggaaagc agaggttga 29
167 <210> SEQ ID NO: 9
168 <211> LENGTH: 30
169 <212> TYPE: DNA
170 <213> ORGANISM: Artificial
172 <220> FEATURE:
173 <223> OTHER INFORMATION: Bacillus anthracis
176 <220> FEATURE:
177 <221> NAME/KEY: primer_bind
178 <222> LOCATION: (1)..(30)
179 <223> OTHER INFORMATION: BA ParC cF1
181 <400> SEQUENCE: 9
182 gtctcatcac gtacttcagc aatgccatct 30
185 <210> SEQ ID NO: 10
186 <211> LENGTH: 32
187 <212> TYPE: DNA
188 <213> ORGANISM: Artificial
190 <220> FEATURE:
191 <223> OTHER INFORMATION: Bacillus anthracis
194 <220> FEATURE:
195 <221> NAME/KEY: primer_bind
196 <222> LOCATION: (1)..(32)
197 <223> OTHER INFORMATION: BA ParC cR1
199 <400> SEQUENCE: 10
200 tcggctaataa cagtcggtaa cgttattggt aa 32
203 <210> SEQ ID NO: 11
204 <211> LENGTH: 17
205 <212> TYPE: DNA
206 <213> ORGANISM: Artificial
208 <220> FEATURE:
209 <223> OTHER INFORMATION: Bacillus anthracis

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Input Set : A:\pto.kd.txt

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212 <220> FEATURE:
213 <221> NAME/KEY: primer_bind
214 <222> LOCATION: (1)..(17)
215 <223> OTHER INFORMATION: BA ParC-E F1
217 <400> SEQUENCE: 11
218 cggatcccccg tcaacac                                     17
221 <210> SEQ ID NO: 12
222 <211> LENGTH: 30
223 <212> TYPE: DNA
224 <213> ORGANISM: Artificial
226 <220> FEATURE:
227 <223> OTHER INFORMATION: Bacillus anthracis
230 <220> FEATURE:
231 <221> NAME/KEY: primer_bind
232 <222> LOCATION: (1)..(30)
233 <223> OTHER INFORMATION: BA ParC-E R1
235 <400> SEQUENCE: 12
236 cggatcaatt atgggaaaca acgatgaatc                       30
239 <210> SEQ ID NO: 13
240 <211> LENGTH: 27
241 <212> TYPE: DNA
242 <213> ORGANISM: Artificial
244 <220> FEATURE:
245 <223> OTHER INFORMATION: Bacillus anthracis
248 <220> FEATURE:
249 <221> NAME/KEY: primer_bind
250 <222> LOCATION: (1)..(27)
251 <223> OTHER INFORMATION: BA ParE aF1
253 <400> SEQUENCE: 13
254 aagcgggagg tcatgaaact tctctgc                           27
257 <210> SEQ ID NO: 14
258 <211> LENGTH: 29
259 <212> TYPE: DNA
260 <213> ORGANISM: Artificial
262 <220> FEATURE:
263 <223> OTHER INFORMATION: Bacillus anthracis
266 <220> FEATURE:
267 <221> NAME/KEY: primer_bind
268 <222> LOCATION: (1)..(29)
269 <223> OTHER INFORMATION: BA ParE aR1
271 <400> SEQUENCE: 14
272 agtggtaagt taacacccgc acaatcacg                         29
275 <210> SEQ ID NO: 15
276 <211> LENGTH: 20
277 <212> TYPE: DNA
278 <213> ORGANISM: Artificial
280 <220> FEATURE:
281 <223> OTHER INFORMATION: Bacillus anthracis
284 <220> FEATURE:

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Input Set : A:\pto.kd.txt

Output Set: N:\CRF4\04222005\J531159.raw

```

285 <221> NAME/KEY: primer_bind
286 <222> LOCATION: (1)..(20)
287 <223> OTHER INFORMATION: BA ParE bF1
289 <400> SEQUENCE: 15
290 cccttggtttc gcagaaccac
293 <210> SEQ ID NO: 16
294 <211> LENGTH: 20
295 <212> TYPE: DNA
296 <213> ORGANISM: Artificial
298 <220> FEATURE:
299 <223> OTHER INFORMATION: Bacillus anthracis
302 <220> FEATURE:
303 <221> NAME/KEY: primer_bind
304 <222> LOCATION: (1)..(20)
305 <223> OTHER INFORMATION: BA ParE bR1
307 <400> SEQUENCE: 16
308 ttgaagcttt cgtttcctat
311 <210> SEQ ID NO: 17
312 <211> LENGTH: 31
313 <212> TYPE: DNA
314 <213> ORGANISM: Artificial
316 <220> FEATURE:
317 <223> OTHER INFORMATION: Bacillus anthracis
320 <220> FEATURE:
321 <221> NAME/KEY: primer_bind
322 <222> LOCATION: (1)..(31)
323 <223> OTHER INFORMATION: BA ParE cF1
325 <400> SEQUENCE: 17
326 ctaattctgc ttcaatccca ttttggttcac c
329 <210> SEQ ID NO: 18
330 <211> LENGTH: 28
331 <212> TYPE: DNA
332 <213> ORGANISM: Artificial
334 <220> FEATURE:
335 <223> OTHER INFORMATION: Bacillus anthracis
338 <220> FEATURE:
339 <221> NAME/KEY: primer_bind
340 <222> LOCATION: (1)..(28)
341 <223> OTHER INFORMATION: BA ParE cR1
343 <400> SEQUENCE: 18
344 tagcggtata gataaagggc gaggaatg
347 <210> SEQ ID NO: 19
348 <211> LENGTH: 26
349 <212> TYPE: DNA
350 <213> ORGANISM: Artificial
352 <220> FEATURE:
353 <223> OTHER INFORMATION: Bacillus anthracis
356 <220> FEATURE:
357 <221> NAME/KEY: primer_bind

```

RAW SEQUENCE LISTING ERROR SUMMARY  
 PATENT APPLICATION: US/10/531,159

DATE: 04/25/2005  
 TIME: 16:44:11

Input Set : A:\pto.kd.txt  
 Output Set: N:\CRF4\04222005\J531159.raw

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:42; N Pos. 1,2,3,4,5  
 Seq#:43; N Pos. 1,2,3,4,5,6,7,8  
 Seq#:44; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13  
 Seq#:45; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13  
 Seq#:46; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13  
 Seq#:47; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13  
 Seq#:48; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18  
 Seq#:49; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18  
 Seq#:50; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22  
 Seq#:51; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23  
 Seq#:51; N Pos. 24,25,26,27,28,29  
 Seq#:52; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23  
 Seq#:52; N Pos. 24,25,26,27,28  
 Seq#:53; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23  
 Seq#:53; N Pos. 24,25,26,27,28,29,30,31,32,33

**Invalid <213> Response:**

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27  
 Seq#:28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51  
 Seq#:52,53



## VERIFICATION SUMMARY

PATENT APPLICATION: US/10/531,159

DATE: 04/25/2005

TIME: 16:44:11

Input Set : A:\pto.kd.txt

Output Set: N:\CRF4\04222005\J531159.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:781 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0

L:804 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0

L:827 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:0

L:850 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:0

L:873 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0

L:896 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0

L:919 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0

L:942 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:0

L:965 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0

L:988 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:0

L:1011 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:0

L:1034 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53 after pos.:0